

People Who Need People

WHY ARE YOU NEEDED?

It's like this.

When you give to the Combined Federal Campaign you are helping other people.

But -- you benefit, too.

Has your family, or anyone you know, been helped through a family crisis by the Salvation Army, Family Service Association, or the Mental Health Association? Part of your 1972 pledge will help these programs.

Is there anyone in your family, or among your friends, who is active in the Visiting Nurses, Drug Abuse Coordinating Council, Homemakers Service, or the Children's Home Society?

These are only a few of the agencies who serve local families -- the elderly, youth, the sick, and those who just need a helping hand.

Your contribution to the Combined Federal Campaign helps to support all of them.

What about the International scene? Your CFC dollars help the explosive population growth, provide medical aid, food, tools, and education to many undeveloped nations.

The National Health Agencies need your support for the fight against cancer, heart disease, blindness and other cripples and killers.

And so it goes.

The CFC is a good investment in people, as a result, everyone benefits. This week Ames employees will have an opportunity to do their part, to give their share to help the community in which they live.

QUESTIONS & ANSWERS

Each year during the Combined Federal Campaign questions arise concerning the operation of the United Fund which receives 77 percent of the CFC contributions for its 104 human care service agencies. Here are answers to some of the most frequently asked questions.

Q. Who runs the United Fund?

A. Local citizens like yourself, some 12,000 last year, volunteer their time and talent to raise the money, distribute it and make policy decisions regarding United Fund operations. A small staff implements policy and works with volunteers to help coordinate campaign procedures and use of materials.

Q. Do United Fund agencies have other incomes?

A. Yes. Most agencies have developed additional sources of income through membership enrollment programs, support affiliated auxiliaries, and fees for services based on an individual's ability to pay. These and other income producing activities of this kind are reviewed and considered by volunteer Allocations Committees prior to determination of amounts allocated by United Fund.

Q. Do campaigners get paid?

A. No! Thousands of volunteers each year give time and effort to United Fund and member agencies. Not only do these volunteers keep costs down, but they contribute generously to United Fund as well.

Q. Why aren't all drives in the United Fund?

A. There are many campaigns that are not a part of United Fund, however, United Fund maintains an "open door" policy, and any worthwhile agency not duplicating services currently provided, can be considered for admission to United Fund's family of services.



CFC PLANNING SESSION . . . Robert L. Pike (seated, center) Chairman of the Ames 1972 Combined Federal Campaign, met with Fred Baker (left), Avionics Branch, and Gail Clendening (right) of the Army Air Mobility Research and Development Laboratory Headquarters, to discuss the annual fund raising campaign which is being held this week (October 4-8). On hand to assist in coordinating Campaign procedures was Mr. George M. Szudy (standing), Director of the CFC for Santa Clara County.

Ames CFC Aids Community

The kick-off meeting of the Ames 1972 Combined Federal Campaign held Monday (October 4) set the pace for the week-long drive which ends Friday, October 8.

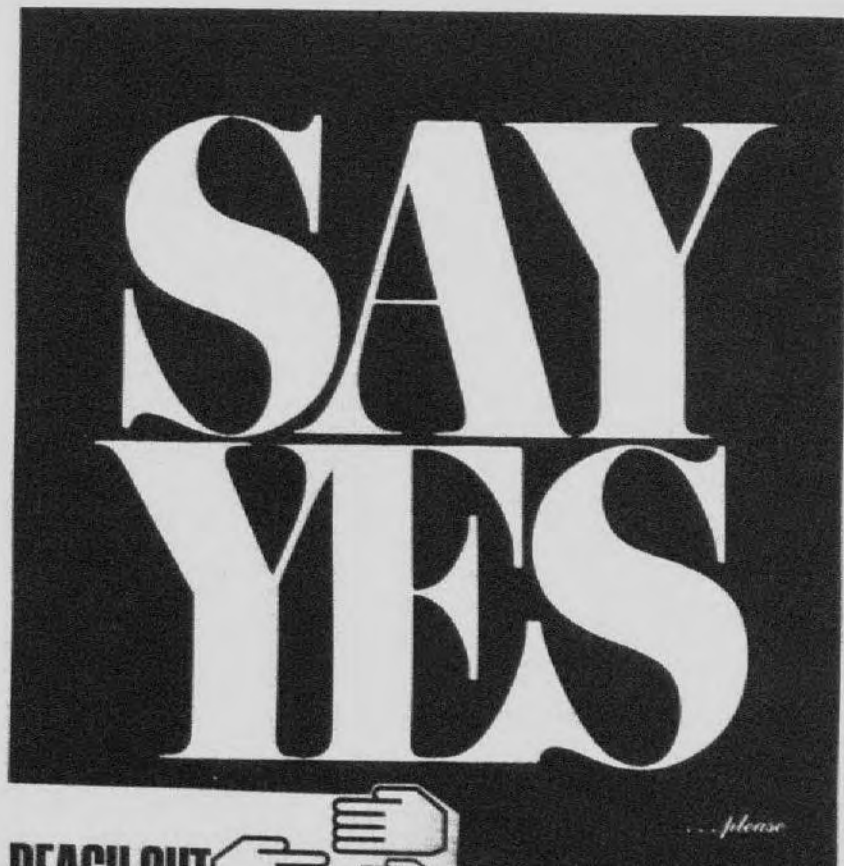
Some 100 captains and solicitors from organizations throughout the Center met with Robert L. Pike, Chairman of the 1972 CFC, and George M. Szudy, Director of the CFC for Santa Clara County, to discuss the campaign and to seek support for this once-a-year fund drive.

Mr. Pike talked about the many agencies in the community that benefit from CFC contributions. He told the group that there are many small organizations providing human care services who depend on much needed CFC funds to continue their operations. "Without this support", he said, "they will fold." He cited in particular the Alviso Community Day Care Center, new to the list of CFC beneficiaries. Mr. Pike, accompanied by a representative group of Ames CFC Captains, toured the facility last week and observed first-hand the good work of this agency and the community service it provides. Then he went on to say, "Ames is a part of the community, through this campaign we demonstrate our participation in community affairs. Our concern for those who need

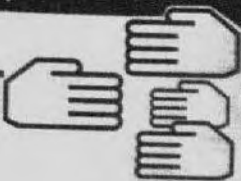
our help can best be shown by the financial support we provide."

"The generosity of Federal employees has been noteworthy since the one-drive concept was initiated six years ago," Mr. Szudy declared. "The key factor of the drive," he said, "is to get the message across that in this complicated society in which we live people from all walks of life benefit from the CFC." He mentioned specifically drug abuse, pointing out that this can strike anywhere, any time. The United Fund allocates \$18,500 for the Drug Abuse Coordinating Council of Santa Clara County. This agency has a four-pronged program of service, education, rehabilitation, and research. It also provides an intra-residential program operated out of "Pathway House" to help those already addicted or dependent on drugs to return to a drug-free life.

During the question and answer period following the meeting Mr. Szudy was asked about the cost of running the United Fund - CFC campaign. He replied that campaign costs for the Santa Clara County United Fund in 1970 were 5.4% of the total raised. This is the lowest figure for any community drive in California. He also stated that only 2.9% is allocated for year-round administration.



REACH OUT



invest in people
and we all benefit

Ames CFC Captains Visit Alviso Day Care Center

CFC FUNDED AGENCY

The Alviso Community Day Care Center, located in a clapboard structure with a small well furnished playground in front, was visited by five Ames employees last week.

Four of the five; Allen Goodrich, Iliac Project Office; William Jones, Research Computation Analysis; Albert A. Puccinelli, Simulator Systems Operations; and Barbara Busch, Public Affairs Office, are Combined Federal Campaign division captains. The fifth, Robert L. Pike, Deputy Director's Office, is CFC Chairman this year. The group went to Alviso to see how the money they would soon be soliciting from fellow employees helps to support a CFC agency.

What they saw when they arrived at the Day Care Center was a small playground, bordered by a large old church and a long low building, and filled with small children.

They were greeted by Mrs. Doris L. Martinson, Director of the Center. As the children climbed and tumbled over the several playground structures, Mrs. Martinson proudly explained how the center worked.

The children are left at the center by mothers who work, or who attend English classes in the large church next door.

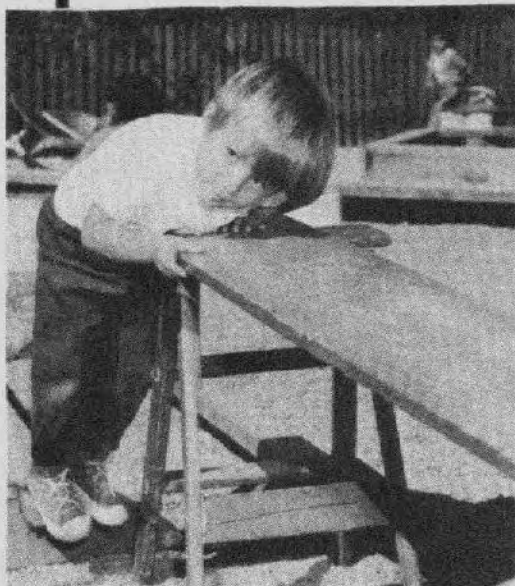
Each mother is required to pay a fee for the center's services. This fee is minimal, usually around 7¢ a day. It is determined by the size of the family income.

For this fee the children are introduced to the English language, tutored if necessary, taught crafts and music, including Mexican folk music and culture. The center serves one large meal a day, and several snacks during the morning and late afternoon hours.

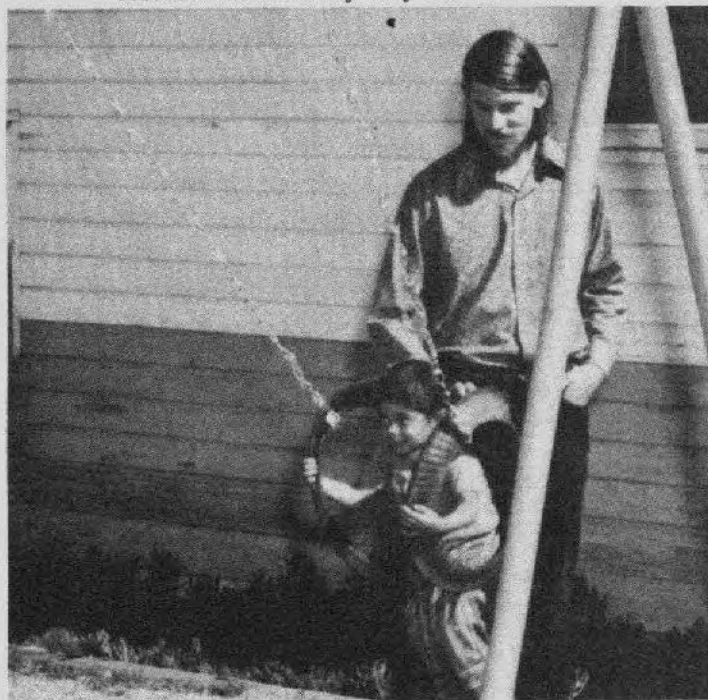
The center, which was begun in July of 1969 was just recently added to the United Fund list of recipients. Mrs. Martinson commented; "I certainly hope we don't lose that funding."

Until the United Fund began helping the center, it was financed by donations from various churches and service organizations. Later local businesses, the Self Help Foundation, Santa Clara County and the city of San Jose provided support. Finally, in January Title IV A of Santa Clara County, and the United Fund, together totally financed the center.

The money contributed to the CFC is used not only for the care of children, but for virtually every area of human need,



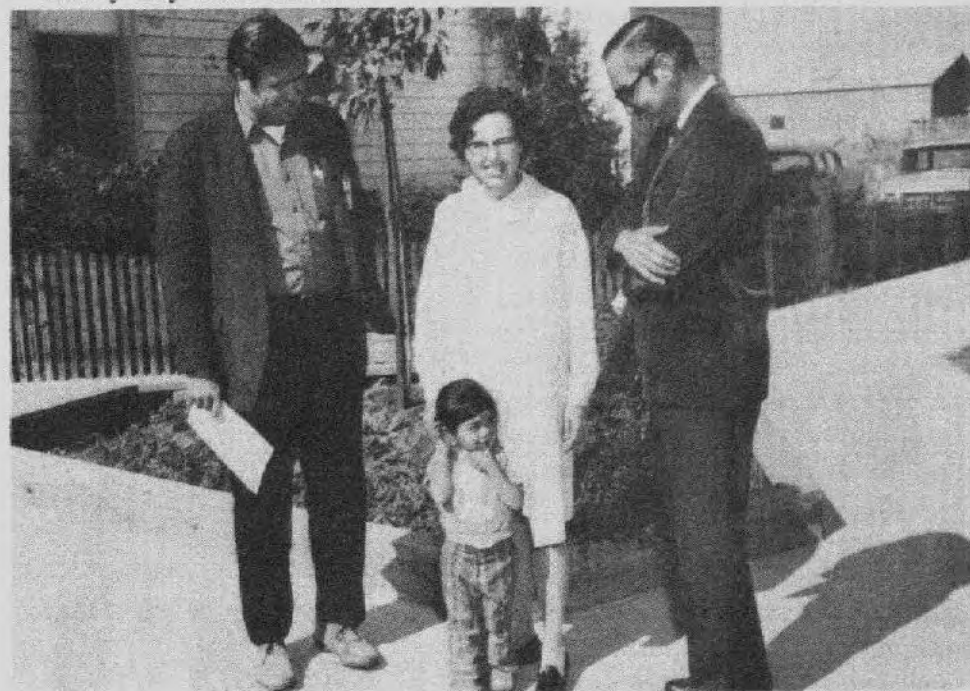
A LITTLE SHY AT FIRST . . . but the three pupils pictured above soon relax and begin chattering away in English. This may sound commonplace for most youngsters, but at the Alviso Community Day Care Center it is an achievement for these Spanish-speaking children.



GIVING A FRIEND A PUSH . . . Allen Goodrich, Iliac IV Project Office, is pictured above helping out a new-found friend at the Alviso Community Day Care Center.



CHRISTOPHER . . . pictured here with Miss Barbara Busch, Public Affairs Office and CFC Captain, is one of 28 children who receive instruction in English, music and crafts, as well as dinner at the Alviso Community Day Care Center.



DIRECTOR AND FRIEND . . . Mrs. Doris Martinson (center), Director of the Alviso Community Day Care Center, and one of her charges discuss the activities of the center with Ames CFC Captain William P. Jones, (left) Research Computation Analysis, and Ames CFC Chairman, Robert L. Pike, (right) Deputy Director's Office. Mr. Pike and four division captains visited the center last week to see, first hand, how CFC contributions are spent.



A CONFERENCE . . . held on the playground of the Alviso Community Day Care Center between Ames CFC Captain, Albert A. Puccinelli, Simulator Systems Operations, and Christopher, a pupil at the center.

Ames to Host TU Conference

Ames Research Center will host a technology utilization conference titled "Exploring Aerospace Technology for Solution of Community Problems" on Thursday, October 28.

Ed Reinecke, Lieutenant Governor of California and recently designated as the administration's Coordinator for Science and Technology, will be luncheon speaker.

The conference purposes to "inform potential manufacturers, entrepreneurs, and users of the existence of aerospace technology that could be applied to community problems and how that technology can be obtained readily." Included in the day's events will be several demonstrations of new technology.

Dr. Hans Mark, Ames Director, will welcome the conference attendees.

Dr. Alfred J. Eggers, Assistant Director for Research Applications, National Science Foundation, and a former organizational director at Ames, will talk on the "Role of Technology in a Changing Society;" Stanley E. McCaffrey, President of the San Francisco Bay Area Council, will discuss "Bay Area Problems in Perspective;" Jeffrey T. Hamilton, Director of the Technology Utilization Division, NASA Headquarters, will review the NASA TU Program and Technology Applications. Dr. Donald C. Harrison, Chief of the Department of Cardiology at Stanford University Medical Center, will outline the work of the Stanford Biomedical Technology Team, and Joseph G. Berke, Director of the Technology Applications Program at Stanford Research Institute, will discuss the SRI Technology Applications Team.

At the afternoon sessions NASA Technology Utilization Services will be outlined by Bradford A. Evans, Ames Technology Utilization Officer; Darrell G. Brekke, Ames Patent Counsel, will present the patent and license aspects of technology transfer; and Horace F. Emerson of the Ames TU Office will speak on "NASA Technology Applicable to Community and Environmental Problems."

Joseph O. Hannauer, TU Officer
(Continued on Page 2)

Date Change for Awards Ceremony

The annual Honorary Awards Ceremony for Ames employees originally scheduled for October 20, has been changed to Wednesday, October 27, at 2:30 p.m. in the auditorium.

Retired Ames employees are invited to attend this annual event and will find a special reserved section at the front of the auditorium.

Good Response to Ames CFC Campaign

A report at press time from Ames captains and solicitors for the 1972 Combined Federal Campaign (CFC) indicates a generous response from Center employees for this once-a-year fund drive.

According to CFC Chairman Robert L. Pike, contributions tallied when the drive closed officially on Friday (October 8) had reached close to the \$34,000 mark. Still to come are contributions from employees who were absent from the Center on official assignments or vacation during the Campaign.

EXCERPTS FROM MAJOR SPEECH

Dr. Fletcher Tells Priorities

Dr. James C. Fletcher, NASA Administrator, was featured speaker at the 14th Annual Aerospace Luncheon of the Los Angeles Area Chamber of Commerce held Oct. 1 at the Beverly Hilton Hotel.

He told the more than 750 attendees that since becoming administrator of NASA last May he has found public office to be something of a mixed blessing. "On the one hand, I am afforded the opportunity of participating in a very exciting program and of meeting with a great many interesting and distinguished people . . . on the other," he said, "I am the unsolicited recipient of much well intended counsel". He has been told, for example, that the exploration of space is no longer in vogue . . . that the future development of space technology must take a back seat to more important things. These statements he said, pointed out that the challenge facing the space program is educational as well as technological -- that "we must do a better job of convincing the man-on-the-street of the program's merits, if we are to get the public support we need."

"What we must do is to give

the public the information it needs to put its priorities in proper perspective.

"We hear a lot these days about what's wrong with America and about the need to reorder our priorities.

"Well, I'm here to tell you that there is something seriously wrong, that our priorities are out of whack when as a nation we pay people more not to work and more in farm subsidies than we do on space research, a program which impacts our national economy and vitally affects our national security.

"I don't need to be told that our sense of priorities is dangerously lopsided when in Los Angeles some of the most talented members of our technological team are driving taxis for a living while we are slipping behind Europe in aeronautical engineering and the Soviet Union is pulling ahead of us in many areas of space exploration."

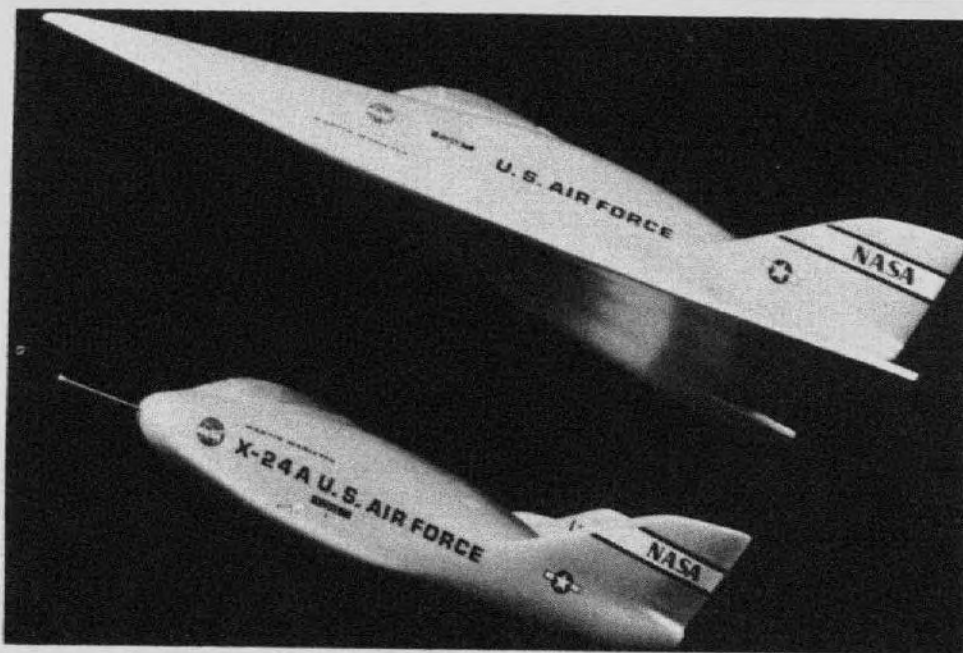
Examining the need for a re-evaluation of priorities he agreed that new goals could be achieved, "As a scientist, I know that the answer to many of our social problems -- worldwide as well as domestic -- is to be found through technology. In a mature economic society such as ours, a strong technological base is prerequisite for economic progress, which in turn makes possible social progress.

"This is why I am so concerned about maintaining our technological capability and a healthy aerospace industry. This is not simply a Los Angeles problem or a Southern California problem. It is not local or regional in nature. It is a national problem of the greatest importance.

"A strong technology base is absolutely vital to the United States in terms of its contributions to international prestige, national security, and domestic peace of mind. I intend to speak up in the councils of government at every opportunity to press the case for technology."

Turning his attention to economic competition he said, "The most ominous lag of all in the United States is in the development of new technology for military and civil aviation. If we are losing our edge in that field, where we have held

(Continued on Page 2)



CONVERSION . . . The experimental Air Force X-24A lifting body is being converted to a markedly different shape with a new designation, X-24B. The X-24 is one of three lifting bodies flown in a joint program managed since 1967 by NASA's Flight Research Center. The other two programs are the HL-10, designed at Langley, and M2 designed at Ames. The lifting bodies have been flown to investigate the subsonic and supersonic handling qualities associated with configurations that derive aerodynamic lift from their body shape.

FLETCHER TALK

(CONTINUED from Page 1)

the leadership for so long, one thing is clear: We are not losing because the Europeans or the Soviets or anyone else have superior ability. Sad to say it is not a matter of defeat -- but of default.

Conveying still another message Dr. Fletcher said, "There is a widespread myth that if we stopped the space program, there would be enough money saved to solve our problems of hunger, poverty and urban blight.

"People simply do not realize that this Nation is already spending 42 cents out of every tax dollar for social and human resources programs and only 1.4 cents on space.

"If NASA's 1.4 cents of the tax dollar were added to the 42 cents allocated for social programs, does anyone believe that this fractional addition would even begin to compensate for the problems it would create?

"Now, equate that with the exploration of space for the benefit of all mankind. Or ask if 1.4 cents is not a small price to pay for national security and peace of mind."

In his closing statement Dr. Fletcher stressed that, "We have a program that is absolutely vital to the future of this Nation. We have a great and important message to get across, and it is one I intend to fight for. I am counting on you to join me."

Among the luncheon attendees from Ames were Dr. Hans Mark, Director, C.A. Syvertson, Deputy Director, and Louis H. Brennwald, Director of Administration.

SPACE TECHNOLOGY CONFERENCE

(CONTINUED from Page 1)

for the Small Business Administration, Pacific Coastal Area, will show the role of his agency in Technology Transfer. A. Kendall Oulie, Director of the Western Research Application Center, Los Angeles, will present information of the NASA Regional Dissemination Centers.

Co-sponsoring the conference are; Ames, San Francisco Bay Area Council, Small Business Administration, Bay Area League of Industrial Associations, California Regional Water Quality Control Board, Peninsula Manufacturers Association, Bay Area Comprehensive Health Planning Council, Comprehensive Health Planning Association of Santa Clara County, and Bay Area Air Pollution Control District.

Award Ceremony Recalls History Drive Underway

To Fight Car Theft

Each October NASA celebrates its birthday by honoring employees for length of service and exceptional achievements. This October NASA is finding it difficult to supply enough awards for employees with 30 years of service.

The difficulty has been caused, not by recent budget cuts, but by history. On Dec. 7 it will be thirty years since the Japanese bombed Pearl Harbor.

That year, 1941, many of the youth of America entered federal service in one way or another. Many of the young men and women from Langley and the Bay Area came to work at the Ames Aeronautical Laboratory.

Ames, barely one year old, was the National Advisory Committee for Aeronautics' (NACA) second laboratory.

It had been built with an eye on Germany's expanding aeronautical research and airplane construction, and Hitler's expanding appetite for power. The main theme at Ames was to be research in high-speed aerodynamics.

Employees that year drove to work from the towns of Mt. View and Palo Alto on roads that cut through several miles of rich farm land.

They worked in the newly completed flight research and technical services buildings. Administrative activities were carried out in a construction shack.

struction shack.

Near midnight on March 31, 1941, Ames' first wind tunnel, the 7- by 10- foot, went into operation. By the end of the year Ames Laboratory boasted three tunnels; a second 7- by 10- foot, and the 16- foot.

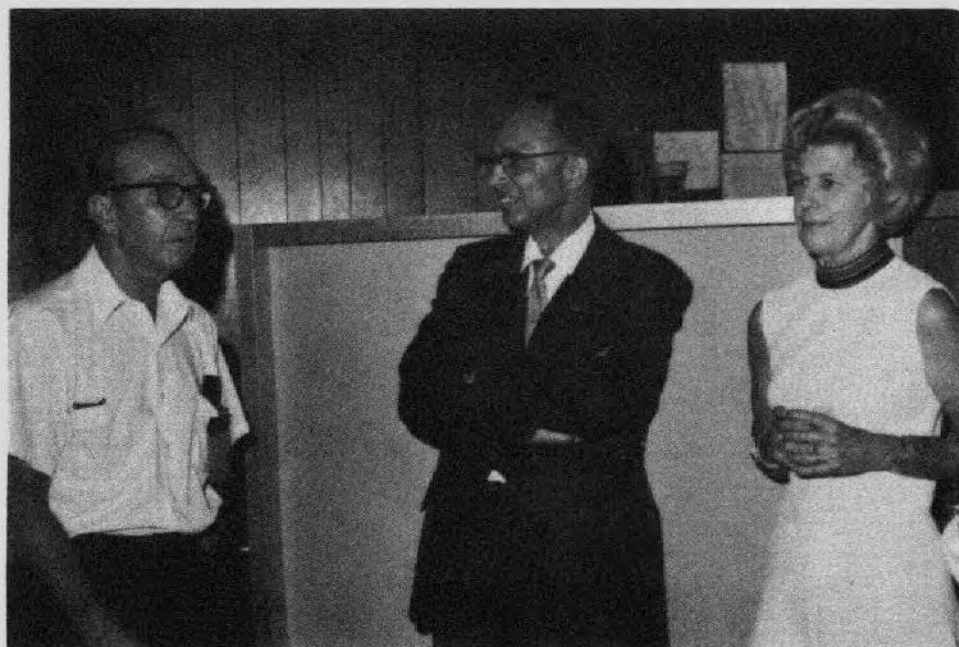
This year, boasting 13 wind tunnels, NASA Ames Research Center will honor 71 employees who went to work for the government in 1941. Those 71 represent the enthusiasm with which the young entered WWII, and the enormous efforts which enabled Ames to grow and rise to its present stature.

Mariner 9 Report

The ruddy planet Mars, object of centuries of theoretical speculation, will be put to a stern day-by-day scientific scrutiny in November when the Mariner 9 spacecraft begins at least three months of orbital study.

If all goes well, scientists anticipate a veritable information explosion about the Mars terrain, climate and atmosphere, even its two tiny moons, and hope to establish daily and seasonal weather patterns.

Scheduled to arrive at Mars Nov. 13, Mariner 9 is set to radio back from 25 to 30 billion computer bits of information gathered in six scientific experiments.



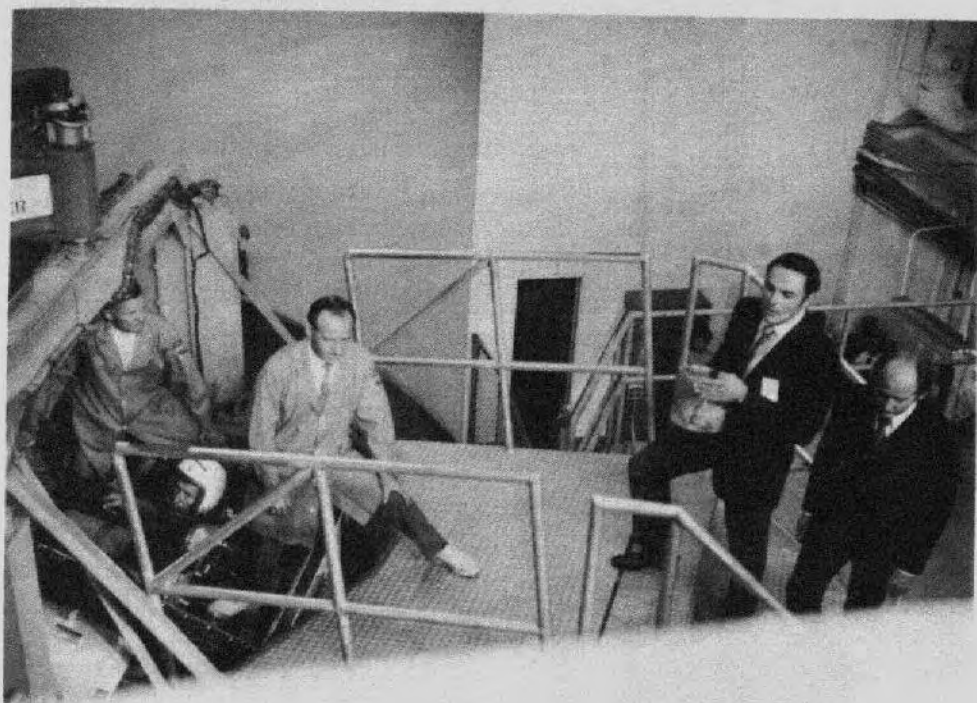
LAKE TAHOE BOUND . . . is Frank E. DuBois, Jr. (center), who retired from the Planetary Environment Branch after more than 30 years of Federal service. Before his departure Frank and his wife, Elsie (right), were honored at a farewell party hosted by friends and business associates at the Center. The couple is shown here being greeted by former Ames employee Lynne P. Little who joined the retired ranks last May. A member of the Ames staff since 1945, Frank has been active in the employees' union and served for several years on the Equal Employment Opportunity Committee. Now his interests are centered around a new home in the Sierra. Gifts of a belt sander and portable jig saw presented at the party by Leo G. Poppoff, Assistant Chief of the Space Sciences Division, will get a good workout in his new workshop.

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Phone 2385

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Reporters NASA Employees

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STARS ARE BORN . . . on the Ames sound stage, otherwise known as the Flight Simulation Laboratory. When the staff of "The Bold Ones", a television series dealing alternately with doctors and lawyers, came to Ames to film a sequence they discovered three new stars.

The action, recorded in the picture above, took place in the Five-Degree- of Motion Simulator. Ames stars discovered during the filming are; (l to r) Gary D. Nolt, Simulator Systems Operation; Kermit R. Skrettingland (wearing helmet), Medical Services; and Joseph Quartuccio, Jr., Simulator Systems Operation. John Saxon, star of the series, stands with the Ames stars.

The sequence was based on an actual medical case in which the simulator was used. Quartuccio and Nolt operated the simulator for both on and off-screen dramas.

The "Bold Ones" Come To Ames

If a fledgling actor were looking for a place to be discovered, Ames would hardly be the place he would go. Yet three future stars of television were found here, in the Flight Simulation Laboratory, Sept. 27.

In the near future we will be able to turn on our TV and watch Kermit R. Skrettingland, Medical Services; Gary D. Nolt and Joseph Quartuccio, both of Simulator Systems Operation, playing their first parts in a TV drama.

They will appear in a sequence of "The Bold Ones" entitled "Short Flight to a Distant Star." Like all beginning actors, their first roles were minor. Although they all played centrifuge operators, Kermit Skrettingland landed the biggest part as the principal in a test run of the Five-Degree of Motion Simulator.

The story revolves around a shooting victim with a bullet fragment lodged in his brain. The victim's doctors, played by the stars of the program, John Saxon and David Hartman, decide it must be moved to a less dangerous area of the brain.

For help they turn to Ames. The script is based on an actual-life drama that occurred at the Center in November, 1968.

Dr. Seymour N. Stein, then Chief

of the Medical Office and Dr. Ralph Pelligra, Chief of the Medical Services Branch, along with several other Ames employees, worked with local doctors to move a bullet fragment in a robbery victim's brain. Dr. Stein was medical advisor for the TV sequence.

Several views of Ames will be shown during the sequence, including an aerial view, the Administration Building and Ames' Lear Jet. The Public Affairs Office will notify all personnel of the date of the program airing, as soon as it is known, through a memo to staff.

Management Instruction On Mail Fraud Due

NASA Headquarters is preparing a Management Instruction on the unlawful use of Federal mail. Pending the issuance of that Instruction, all Ames employees are reminded that the use of NASA Postage and Fees Paid envelopes for private mail is unlawful. Whoever makes use of Federal mail to avoid payment of postage on private letters is subject to a \$300 fine.

Clarification of the Wage Freeze

The U.S. Civil Service Commission has issued further instructions concerning the President's Executive Order directing a federal employee wage and salary freeze.

According to the latest report, cash awards can still be granted to employees for performance exceeding job requirements either as a one-time occurrence or over a sustained period.

Special Achievement awards will continue to be made under policies and controls in effect immediately prior to the freeze. It should be noted that quality step increases are not "cash awards" under the Incentive Awards Program and are not authorized to be made during the freeze period.

Employees may also continue to receive cash awards for meritorious suggestions.

Report on Apollo 'Chute Failure

Tests to determine the cause of the Apollo 15 parachute failure have been concluded with two items still listed as candidates.

They are the fuel dump, which expelled approximately six pounds of monomethyl hydrazine (MMH) from the command module reaction control system, and the links which connect the suspension lines to the risers.

Apollo Spacecraft Program officials doubt that the exact cause can be determined, but corrective action will be taken on both effective with Apollo 16.

Tests have shown that MMH being dumped through a hot engine can result in tongues of flame from the thrusters which could affect parachute lines. Remaining fuel or oxidizer (nitrogen tetroxide) has been dumped shortly after main chute deployment. The dump will be eliminated in future missions, and the spacecraft will land with residual propellants aboard.

Flaws were detected in links on the one Apollo 15 parachute recovered. The parachute which failed was not recovered, but the possibility exists that enough of the links could have failed on it to permit collapse. The origin or cause of these flaws is not understood at this time. For this reason, the material for these links will be changed. The links have been constructed of 4130 steel. Future links

Ames Researcher Presents Papers

Ames research scientist Dr. Keith A. Kvenvolden, Chemical Evolution Branch, returned recently from Europe where he gave an invited paper at the Fifth International Meeting on Organic Chemistry.

The Meeting, held in Hannover, Germany, was sponsored by the European Branch of the Organic Geochemistry Division at the Bundesanstalt Fur Bodenforschung.

Dr. Kvenvolden's presentation entitled "Geochemistry of Amino Acid Enantiomers: Gas Chromatography of their Diastereomeric Derivatives," concerns the results of laboratory findings of amino acids in sediments. The experiments were conducted from a catalogue of data spanning five billion years.

Dr. Kvenvolden also gave two additional invited technical papers at the Julich Nuclear Research Center, Julich, Germany, and at the University of Bristol School of Chemistry in England.

Photo Exhibit at Life Sciences

An exhibit of black and white photographs of Greece and the Greek Isles is now on indefinite display in the Life Sciences Library (Basement of Bldg. 239). They will be substituted from time to time by pictures from Yugoslavia, Venice, Germany, and London.

Ames research scientist Constantine Dolkas, Man-Machine Integration Branch, took the photographs last summer when he and his family sailed the Mediterranean with friends.

Commenting on his trip Mr. Dolkas said, "Pictures and words do not do justice to some of the experiences. Most of all, the family has a pleasant and indelible memory of another part of this world that some time ago established a high standard -- which succeeding civilizations might emulate.

"The only thing I regret in the trip is that I did not take enough pictures of the people -- they were priceless."

will be of Inconel, a nickel/steel alloy.

Tests eliminated the apex cover, or forward heat shield, as a reason for the collapse of one of the three parachutes during the Apollo 15 landing.

WANT ADS

The Astrogram's ad section is provided as a personal, non-commercial service to Ames employees. Advertiser must be identified by name, extension and organization. The name may be left out of the ad but is needed for records. Ads must be submitted in writing to The Astrogram, N 241-4, by Thursday, a week before publication. The advertiser's home telephone number must be provided as a point of contact except in carpool notices.

AUTOMOBILES

For Sale-1966 Olds, Cutlass convertible, 390 engine, auto. Pwr. str., brks, R/H, exc. cond. in and out. \$995, call 941-1861.

For Sale-Shasta Beach Comber, 8' slide-in camper. Has ice box closet, bed and table, \$300, Call George 251-2180.

For Sale-1959 Ford Galaxie, AT, PB, PS, 352 cu.in. Call George 251-2180, \$250.

For Sale-1960 Karmann Ghia convert, under 70,000 original miles with 10,000 miles on a rebuilt 1964 engine. \$500, Van Etten, 274-2736.

For Sale-1958 Cadillac coupe, low mileage. Excellent interior. Easy restoration to mint, \$750/offer. 245-3243, after 4:30.

For Sale-1970 Challenger, special-edition, 383 Magnum, PB, PS, Air, buckets, console, many more options. List \$4860. Sell \$2850. Phone 797-7414.

For Sale-Faithful 1955 Chevy wagon, 6 cyl., stick htr, good for around town, call John White, 948-5954.

For Sale-1966 Chevelle, 2-dr., HT, Malibu, 4-speed, stick, V8, with tach, all stock, clean. Bench seats. Bule with black interior. \$895, G. Falkenthal, 326-0347.

HOUSING

For Sale-40-plus acre parcels off Skyline near Palo Alto City limits. Sweeping ocean views, trees and streams. Price range \$20,000 to \$44,000. Call Jim, 948-2987, after 6 p.m.

For Sale-Mobile home, 24' x 50', w/w carpet, 2-bedrooms, 2-baths, landscaped, awnings, skirts, 8' x 7' utility shed. Santiago Villa (next door to Ames), 961-8042.

For Rent or Lease-with Option to Buy, 2 miles from Ames, Sunnyvale, 1030 Fulton, 3-bedroom, 1-bath, livingroom, separate diningroom, panelled all electric kitchen, Panelled familyroom, separate washroom with washer and dryer. Hardwood floors, drapes, chandeliers, mirrors, fireplace w/ mantel, UHF, VHF antenna, landscaped front and back yards. You pay lease/rent payment and phone use. I pay utilities, monthly phone chgs. and provide full maintenance of appliances and outside grounds. Dave Rudy - 55 Evandale Ave. Apt. 4A or phone, 968-1614.

For Rent-Vacation cottage-Sunnyside area of Tahoe, 2 bedroom, walk to beach or marina, \$50 per week, \$25 per weekend until winter season. Call 328-4642 or 964-9348.

Want to Rent-Your secure extra garage space in Cupertino-Los Altos-Mt. View area. For my historical vehicle. References, minimal inconvenience to you. Please call 245-3243.

MISCELLANEOUS

For Sale-Almonds, orchard run, soft shell, 45c per lb, 968-0805, 732-2189.

For Sale-Young rabbit, buck, honey colored, to good home, \$1. Call 253-6294.

Wanted-Girl's 28" bicycle, in good condition. Call J. Kirkpatrick, 245-9461.

For Sale-1969 TMX Bridgestone 100, \$250. Call George, 251-2180 or 251-4938.

For Sale-Trumpet, Cleveland B-flat with case and accessories. Excellent condition, \$125. Call 736-6810. Boy's Columbia Stingray bicycle, with handle bar radio. Won in contest. Has never been ridden \$50. Call 736-6810.

For Sale-Labrador puppies, 3rd generation Yellow, AKC, sire and dam x-rayed, whelped 9-9-71, excellent hunting, field and show lineage. 379-4237.

For Sale-St. Bernard pups. Males and females. Fantastic for pets or protection. Delivery after 6 weeks birthday, Oct. 26. \$100 to \$150. Faraone, 867-2436.

Wanted-Used trumpet for beginning student to use in school. Call Dan Dempsey, 739-3069.

Lost-Man's sunglasses, gold frame bifocal prescription. Black and white plastic case, E.N. Shaw, 2218.

Available-Marshall Process Controller, Programmer and Crystal Furnace Control; Building 213, Basement, new section, decal 39571. For information call 2925.



"AIRPLANE EATS PHOTOGRAPHER" -- OR . . . a good portrayal of Lee Jones, Ames Photographer getting involved in his work, as usual. Lee was on an assignment at the Ames hangar ramp when research engineer Chuck Jackson of the Flight and Systems Research Branch came along and caught this scene on film. The unusual aircraft being photographed is the box-like "Skyvan", a short haul cargo plane designed and built by the Short Brother and Harland, Ltd., Belfast, Ireland, flown here for a demonstration.

Special Discounts Offered to Personnel at Ames

A \$2 discount on a \$5.50 or \$4.50 ticket is offered for the 1971 Grand National Horseshow and Rodeo at the Cow Palace in San Francisco, Sunday through Wednesday, October 24-27. The Royal Canadian Mounties will be a star attraction. Coupons are available in the Ames Cafeteria or Room 107, Bldg. N-240.

Appliance Parts Distributor, 850 San Antonio Rd., Palo Alto, is offering a 10% discount on a complete line of parts for all makes of ranges, furnaces, stoves, heaters, dryers, air conditioners, dryers, thermostats, washing machines, dishwashers, refrigerators, garbage disposals, and electric motors. Use the Ames badge for identification; retired employees are also eligible for the discounts.

ALL ABOARD! CLUB .. Roaring Camp at Felton is featuring a moonlight steam train party including a ride through the Redwoods, barbeque, and old-time country singing and dancing. The special low prices is \$5.50 per person. Dates are Saturdays 7 to 11 p.m., October 23 and 30, and November 6 and 27.

History of Ames

Copies of the paperback edition of the "History of Ames" by Edwin Harlan are still available in "The Astrogram" Office. The price is \$4.

GOLF

. . . by Kay Bruck

Once again Riverside determined who the Ames Golf Club Champion is - Roger Hedlund - (the player with low gross for the day - no handicap) and the winner of the Director's Cup - Jim Nelan - (the player with low net for the day - stroke play with handicap). Congratulations to both!

Winners in the three-flight tournament were reported by Co-chairmen Larry Hochstein and Clark White as follows:

1st Flight: Al Petretti, first; tied for 2nd place were Roger Hedlund, Ed Stepnoski, and Bill Gideon; 3rd place went to Paul Barisich.

2nd Flight: Jim Nelan, first; Don Humphry, 2nd; Lee Seegmiller, third; and tied for 4th place were Vance Oyama and Russ Cravens.

3rd Flight: Armando Lopez, first; Earl Maynard, 2nd; tied for 3rd place were Tom Itow and Kay Bruck; 4th place went to Bert Nevotti.

Closest to the pin on the 12th hole went to Larry Hochstein.

Plans for the Monterey Peninsula Golfing Weekend, Nov. 5-6-7, 1971 are being finalized and we are going to have a mighty fine group. For those people who will participate in the Laguna Seca Turkey Shoot tournament only on Saturday, Nov. 6th (not participating in the weekend package), they must be signed up with John Hawkins or Russ

Ames Airings

. . . by Jeanne Richardson

It's a well known fact that Ames has its share of windy individuals. But there are two pro puffers in our midst; DANIEL J. DEMPSEY, Mechanical Instrument; and ROBERT C. WHITTEN, Planetary Environment.

You might have caught their act over Labor Day Weekend at the Scottish Competition in Santa Rosa. As members of the San Jose Chapter of the Royal Canadian Legion Pipe Band they blew their way into the bagpipers West Coast Championship title. This is not a breezy thing to do. The group had to blow out competition from Vancouver to San Diego.

It's easy to see how they did it, with Dempsey and Whitten behind them. Dempsey practices almost every night in the Life Sciences parking lot, while waiting for his wife MARLYN to finish her chores as secretary to Dr. ERIC OGDEN, Environmental Biology.

Whitten entertains as often on the roof of the Space Sciences Building.

What do a set of exceptionally good-looking twin brothers do on a weekend? Well, if you are DAVID and DARRYL WALLACE, Massey Services, you squire 32 girls around the Bay Area.

The occasion was the Miss Twin California Pageant, Sept. 25 and 26, at the Cabana Hyatt House in Palo Alto. If you were watching the Stanford-Oregon game that Saturday you got a glimpse of the girls at half-time.

David and Darryl traveled with the girls everywhere they went over the weekend, as their escorts. During the pageant they helped them on and off stage.

Sound like an exciting weekend for two guys? Not David and Darryl. Their only comments were; "It was an unusual experience" and "I've never seen that many twins in one place!"

When not escorting 16 sets of twins, Darryl attends Foothill Junior College and David is a junior at San Jose State.

There mother, JUNE WALLACE, also Massey Services is naturally very proud of her "boys".

Cravens and pay their green fees (including cart if desired) by close of business on Friday, Oct. 15. We strongly urge players to rent a cart due to the long distances between greens which generally run uphill and downhill.

NFFE Elections To Be Held At Ames

The National Federation of Federal Employees (NFFE) was recognized in 1967 as the exclusive representative of Ames wage grade employees, with the exception of those in the Materials Processing Branch who are represented by the Pattern Workers Association.

NFFE is now seeking to determine whether or not Ames clerical and technician employees want to be represented by their organization for the purposes of exclusive recognition under Executive Order 11491. To accomplish this they have filed a petition with the U.S. Department of Labor showing, as required by the Executive Order, that at least 30% of the employees involved are interested. Accordingly an election to make this determination will be held at Ames on Nov. 2 under the supervision of the Department of Labor.

Eligible voters will include general schedule (GS) non-professional technician and clerical personnel who were employed as of Oct. 16, 1971, and who were not supervisors. There will be more than 450 eligibles.

The eligible technician category includes, for example, photographers, illustrators, electronic technicians, engineering aids and technicians, engineering draftsmen, physical science technicians, biological laboratory technicians, quality assurance specialists and any others in NASA occupational group 300.

The eligible clerical category includes secretaries, clerk typists, specialized clerks in fiscal, supply, personnel, procurement and library work, computer operators and any other clerks in NASA occupational group 500.

Not eligible to vote will be research and administrative professionals, management officials, guards, supervisors, wage grade personnel and any others in NASA occupational groups 100, 200, 600, 700 and 900.

As a point of general information, NASA has a system of categorizing and reporting the classifications of its employees by the following groups:

100 - Wage Grade positions; 200 - Professional scientific, engineering

and mathematician positions not identified with aerospace technology; 300 - Technical support positions (e.g. technicians, photographers, illustrators, etc.); 500 - Clerical and non-professional administrative positions; 600 - Professional administrative positions (e.g. procurement, accounting, law, library, public affairs, personnel, etc.); 700 - Research aerospace technology positions; 900 - Life Science professional positions not requiring aerospace technology qualifications.

Anyone who has a question as to his NASA occupational group may call the Personnel Records and Reports Branch, ext. 2411. Questions on election procedures may be referred to Employee-Management Relations Branch, ext. 2024.

The election will be held Nov. 2, between the hours of 1:30 and 4:30 p.m. at the following locations: Bldg. 242, room 103; Bldg. 229, room 117; Bldg. 235, Cafeteria; Bldg. 201, Auditorium; Bldg. 210, Five Degree Simulator.

In addition Bldg. 229, room 117 will be open for voting from 7 a.m. to 8 a.m. for graveyard shift personnel only.

Each eligible employee will be assigned to vote at one specific polling place. This information is being published in a memorandum to staff. Eligible employees are asked to wear their Ames badges to the polling place.

During the week prior to the election employees may read the Department of Labor's Notice of Election containing a sample ballot and other basic provisions which will be posted on Ames' Bulletin Boards.

Under exclusive recognition no one is required to join the recognized union or pay dues.

Eye Hazard Area

Ames employees are reminded that the Machine Shop (Bldg. 220) is an eye hazard area. Visitors and employees are required to wear safety glasses or disposable eye protectors. A supply of the protectors, maintained by members of the building Safety Committee, is available at each entrance to the building.



OV-10A BRONCO AIRCRAFT . . . used at Ames in the NASA Short Take-off and Landing (STOL) research program shown in flight.

Modified STOL Aircraft Flying at Ames

A research aircraft with rotating cylinders in the wing flaps is now being flown at Ames Research Center.

The rotating cylinder flap system is installed on a modified OV-10A Bronco aircraft, provided by the U.S. Navy, for research in STOL (Short Take-Off and Landing) aircraft characteristics. Modifications include new engines with the propellers interconnected so that either engine can drive both propellers and the rotating cylinders which are installed in the leading edges of the wing flaps.

The rotating cylinder flap con-

"The Astrogram" Begins 14th Year

This issue begins the fourteenth year of "The Astrogram's" publication. Through the years we have tried to record news of the Center as well as articles of interest from NASA facilities throughout the country and look forward to continuing this service.

We take this opportunity to thank all the Ames employees who have contributed to this effort with articles, photographs, and social items. A special note of appreciation is extended to the Reproduction Services and Photographic Technology Branches for their continued support with each issue of the paper.

Dot Evans, Editor

Jeanne Richardson, Editorial Assistant

cept was invented by Alberto Alvarez-Calderon, a former research associate at Stanford University. The flight research program is a cooperative effort by NASA and the U.S. Army Air Mobility Research and Development Laboratory.

The cylinder flaps installed on the OV-10A extend across approximately two-thirds of the wing span and protrude slightly into the airflow over the wing. When the cylinders are rotated rapidly in the direction of airflow, the exposed surface of the cylinder induces the propeller slipstream to flow smoothly across the surfaces of the wing and deflected flap. Wind tunnel tests show that smoother air flow across the upper surface of the wing and deflected flap greatly increases lift. High lift is necessary for the low forward flight speeds desired for STOL operations.

The Columbus Division of North American Rockwell Corp. modified the OV-10A for STOL research and conducted initial flight tests.

Rotating cylinder flaps are one of several concepts being investigated by NASA's Office of Advanced Research and Technology for possible flight performance improvement of future civil and military STOL aircraft. Other STOL activities at Ames include: project management of the Experimental STOL Transport Research Airplane; flight test of a propulsive lift concept called Augmentor Wing; and the design of an advanced STOL avionics system called STOLAND.

AMES FIGHTS POLLUTION THROUGH RESEARCH

The preservation of our environment has become a national interest. Recycling centers, anti-pollution bumper stickers, and the demand "End Pollution" have become well-known products of that concern.

As in many other areas of endeavor, spin-off benefits from NASA's space research have made large contributions in the attempt to control the destruction of our natural environment. In some aspects NASA, and in particular Ames, is conducting research directly related to pollution.

This research was provided for by the National Aeronautics and Space Act of 1958. In that Act, congress declared that the aeronautical and space activities of the U.S. shall contribute directly to, "(1) The expansion of human knowledge in the atmosphere and space."

In the recent "Civil Aviation Research and Development (CARD) Policy Study," undertaken jointly by NASA and the Department of Transportation, it was stated that "... as improvements are made to reduce pollution by other sources, increased efforts will be needed in civil aviation." And, "For aircraft, noise is undoubtedly the most critical of the environmental of non user-acceptability problems ..."

To these ends, and with an eye on the brown horizon, research has begun at Ames in the areas of; air pollution, water pollution, and noise pollution. On this and the next page a few of the research and individual efforts going on at Ames to combat pollution are featured. There are many more efforts being made at the Center in this direction. Unfortunately, there was not enough space to feature all of them.

Water Pollution Research Air Pollution Research

The detection of water pollutants has been made faster and more accurate by an instrument developed at Ames. John C. Arveson and John P. Millard, both of the Thermal Protection Branch, with Dr. Ellen C. Weaver, associate professor of biology at San Jose State College, are responsible for the small monitoring device.

Called the differential radiometer, it measures the concentration of chlorophyll in a body of water. Chlorophyll indicates the amount of drifting microscopic plants, phytoplankton, present in lakes and seas.

The growth of these plants depends on the presence of nutrients in the water, such as nitrates and phosphates. Small amounts of these substances are vital to the aquatic plants.

But where too much of these nutrients are present due to agricultural runoff or domestic sewage, excessive growth can result. Such growth can be hazardous to other plant and animal life.

The amount of chlorophyll then serves as an indicator of nutrient levels. To avoid the accumulation and decay of aquatic plants, it is important to detect changes before the situation becomes intolerable.

The differential radiometer, used aboard Ames' Cessna 401 aircraft, can map the plankton growth of a large lake within twenty minutes. It does this by measuring two wavelengths of sunlight back-scattered from the water. One is the wavelength reflected by chlorophyll, the other is a standard for comparison. The instrument makes comparisons 1400 times a second, and can detect changes in chlorophyll distribution instantly. The differential radiometer has wide applications.

With the addition of a polaroid lens it has been used successfully for the detection of oil slicks. It is also capable of mapping soil run-

off in lakes, rivers, and ocean shorelines.

Aircraft tests were made over; San Francisco Bay, Clear Lake, Lake Tahoe, Lake Berryessa, San Diego Bay, several reservoirs and over the open ocean.



AMES PAPER RECYCLED . . . Computer paper used at Ames is now being collected and recycled. Gerald Hall (left), Mechanical Services and Toribio (Toby) Gonzales (right), Computer Operations, are pictured above with one of the several cans positioned throughout building 233 and by room 113 in building 218. Hall and Arthur Volpe, Property Management negotiated a contract with B. and J. Services of San Francisco for the recycling. Gonzales, as Assistant Chief of the Computer Operations Branch, is Ames' biggest contributor to the collection cans. The recycling contract was negotiated at the suggestion of several employees. Only computer paper is collected. No other paper should be dropped in the cans. Hall stated that, "Except for people putting tabulator cards in the cans, all has gone well so far."

The paper is picked up by B. and J. Services and taken to San Francisco. There it is put into a solution, shredded and eventually made into pulp for reuse.

Flights to trace the photochemical production of pollutants and their dispersion in the atmosphere were begun in late June. They are part of a cooperative smog research program involving Ames scientists and California air pollution experts.

The program features a series of airborne investigations over the San Francisco Bay Area and the Los Angeles metropolitan area. Initial plans call for twelve flights yearly over a three-year period. A Cessna 401 aircraft carries 500 pounds of research equipment to altitudes of 17,000 feet over the test areas.

The program is a joint effort between Ames and the California Statewide Air Pollution Research Center, headquarters at the University of California at Riverside.

NASA's phase of the program is directed by Dr. Ronald F. Reinisch and Hermilo Gloria of the Ames Materials Research Branch. Dr. James N. Pitts, Jr., Director of the Statewide Air Pollution Research Center, is in charge of the University's portion of the project. Participation by NASA in smog search is the result of specialized instrumentation and research techniques developed at Ames to explore the evolution of planetary atmospheres and for investigations into the origin of life. Ames also will contribute its broad experience in conducting airborne research.

Data collected by the team will be available to various researchers in the Air Pollution Control Office of the U.S. Environmental Protection Agency (EPA), the California State Air Resources Board, the Los Angeles Air Pollution Control District, the San Francisco Air Pollution Control District, the Association of Bay Area Governments, and other NASA Centers involved in earth resources studies.

astrogram Room 134
Admin. Mgt. Building
Phone 2385

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Editor Dot Evans
Reporters NASA Employees

Deadline for contributions:
Thursday between publication dates



"LOOK MA, NO FUMES" . . . The trio pictured above; (l to r) Harold R. Collard, Special Projects Office; David C. Black and Larry J. Caroff, of Theoretical Studies, travel to and from Ames the smog-free way; on their bikes. This form of commuting not only keeps them trim and healthy, but also helps control pollution. Another advantage to biking, noted by Collard, is the fond friendships that can develop. He and his bike celebrated their thirteenth anniversary together just one week after this picture was taken.



AIR IS WHAT YOU MAKE IT . . . Carpool members; (l to r) Herbert Carlson, Employee Management Relations; Joseph P. Steinbock, Classification and Organization; Ben Zeitman, Biochemical Endocrinology; and Avraham Shitzer, Research Associate, fight pollution in two ways. Coming to Ames from the Santa Clara area, they reduce highway congestion and exhaust emissions. All members of the pool said they would like to promote the idea. They pointed out that widespread use of carpools would make it easier for everyone to get to work and to breathe. The group, by the way, is looking for another member.

Noise Pollution Research

Reducing airport noise is the object of research being conducted jointly by Ames and American Airlines. The first phase of the research to investigate operational problems connected with flying noise-abating, and somewhat steeper, landing approaches has been completed.

A contract between Ames and American Airlines called for a series of test flights to determine the feasibility of two-segment landing approach procedures which would reduce airport noise. The tests, most of which were flown at Stockton, encompassed 50 hours of flying which were completed September 9.

Major aim of the research project is to discover what minimum changes in procedures and equipment are necessary in order to obtain pilot, airline, and Federal Aviation Administration acceptance of two-segment flight paths as a routine way of operating airplanes on approach and landing.

By keeping the aircraft higher above the ground and reducing engine power requirements during landing approach, the two-segment landing approach pattern, just tested lessens community noise near airports.

For the tests, pilots used area navigation displays to establish a six-degree approach segment, starting at an altitude of 3000 feet.



SMOG IS A GASP . . . George T. Lenahan, Office of the Chief Counsel, varies his means of transportation to and from Ames. Sometimes it's his bicycle, sometimes his motorcycle, and sometimes he walks. His favorite is his motorcycle. According to Lenahan, "It's the easiest to maneuver in and out of traffic, and safer than walking or riding a bike."

The 720B used at Stockton underwent minor modifications. The main change was the addition of three-dimensional area navigation equipment and its tie-in with a modified flight director display to show the pilot the control motions needed to follow the path accurately. Other modifications included placement of airborne data recording devices.

Pilots from various airlines, in addition to American Airlines, participated in the flight evaluation and

piloted the 720B during two-segment approach test runs. NASA and FAA pilots also flew test landings.

First objective of the tests has been to get typical pilot response to the cockpit procedures and changes in workload involved. Pilots and flight observers aboard the aircraft during the tests filled out questionnaires after the flights to record their observations and opinions.

Measurements of noise levels



THE FUMES YOU SMELL MUST BE YOUR OWN . . . because when Bruce Castle (left), Biomedical Research, and Paul Sebesta (right), Biotechnology, jog to work they don't contribute a thing to the increasing pollution problem. This form of commuting is only recommended for the athletic type, however.

during the approach flights were made by Hydrospace Research Corporation, and Bell Aerospace Company measured aircraft distance and altitude from the airport runway with a radar unit.

American Airlines will make its final report on the testing to NASA by November 19. This will include all pilot judgments, technical considerations, passenger questionnaires, and noise measurement analysis.



SPECIAL RECOGNITION . . . for their work in the U.S. Air Force Systems Command Liaison Office located at Ames was extended recently to (l to r) aerospace engineer Carl W. Tusch (left), and the administrative assistant, Mrs. Marian M. Davis. Lt. Colonel William H. Trammell (second from right), Chief of the AFSC Liaison Office, presented an Outstanding Performance Award to Mrs. Davis for the exceptional performance of her duties during the past year, and Mr. Tusch received a promotion to GS grade 14. Dr. Hans Mark (right), Ames Director, attended the ceremony and extended his personal congratulations to the two Air Force employees.

Former Contractor Employee Report Due

Under a statute recently enacted by Congress (Sec. 7, Public Law 91-303), NASA employees formerly employed by certain aerospace contractors are required to submit a report, containing information specified in the statute, to the Director of Personnel, NASA, Washington, D.C. 20546. Personnel who were formerly employed by any of the aerospace companies listed below are required to file such a report by November 15, 1971, if they also meet the following criteria:

1. Employment with the listed aerospace contractor terminated on or after July 1, 1971; and
2. Salary rate during employment with the listed aerospace contractor was \$15,000 per annum or more; and
3. NASA salary rate during FY 71 was equal to or greater than GS-13.

Additional information and NASA forms 1480 may be obtained from the Ames Records and Reports Branch.

Failure to file report is punishable by a maximum of six months imprisonment or a fine of not more than \$1,000, or both.

The following is a list of aerospace contractors which received direct NASA awards totaling \$10 million or more in fiscal year 1971:

Aerojet-General Corp., 9100 East Flair Drive, El Monte, CA 91734.
 Bellcomm, Inc., 955 L'Enfant Plaza North SW., Washington, DC 20024.
 The Bendix Corp., Bendix Center, Southfield, Mich. 48075.
 The Boeing Co., Post Office Box 3707, Seattle, WA 98124.
 Brown Engineering Co., Research Park, Huntsville, Ala. 35807.
 Brown & Root-Northrop, Post Office Box 34416, Houston, TX 77034.
 California Institute of Technology, 1201 East California Boulevard, Pasadena, CA 91109.
 Chrysler Corp., 341 Massachusetts, Highland Park, MI 48203.
 Commonwealth of Australia, Department of Supply, Anzac Park West Building, Constitution Avenue, Canberra, Australia.
 Computer Sciences Corp., 1901 Avenue of the Stars, Los Angeles, CA 90067.
 Computing & Software, Inc., 1900 Avenue of the Stars, Suite 2100, Century City, Los Angeles, CA 90067.
 Fairchild Industries, Inc., Sherman Fairchild Technical Center, Germantown, Md. 20767.
 Federal Electric Corp., 621-671 Industrial Avenue, Paramus, NJ 07652.
 General Dynamics Corp., 1 Rockefeller Plaza, New York, N.Y. 10020.
 General Electric Co., 570 Lexington Avenue, New York City, NY 10022.
 General Motors Corp., General Motors Building, Detroit, Mich. 48202.
 Grumman Aerospace Corp., Bethpage, Long Island, N.Y. 11714.
 Honeywell, Inc., 2701 4th Avenue South, Minneapolis, MN 55408.

Hughes Aircraft Co., Culver City, Calif. 90230.
 International Business Machines Corp., Route 22, Armonk, NY 10504.
 LTV Aerospace Corp., Post Office Box 5003, Dallas, TX 75222.
 Lockheed Aircraft Corp., 2555 North Hollywood Way, Burbank, CA 91503.
 Lockheed Electronics Co., U.S. Highway 22, Plainfield, N.J. 07061.
 Martin Marietta Corp., Friendship International Airport, Md. 21240.
 Massachusetts Institute of Technology, Massachusetts Avenue, Cambridge, Mass. 02139.
 McDonnell Douglas Corp., Post Office Box 516, St. Louis, MO 63166.
 North American Rockwell Corp., 2300 East Imperial Highway, El Segundo, CA 90245.
 Northrop Corp., 1800 Century Park East, Beverly Hills, CA 90067.
 Philco-Ford Corp., C & Tioga Streets, Philadelphia, PA 19134.
 RCA Corp., 30 Rockefeller Plaza New York, N.Y. 10020.
 Radiation, Inc., Post Office Box 37, Melbourne, FL 32901.
 Service Technology Corp., 2345 West Mockingbird Lane, Dallas, TX 75235.
 The Singer Co., 30 Rockefeller Plaza, New York, N.Y. 10020.
 Sperry Rand Corp., 1290 Avenue of the Americas, New York, NY 10019.
 TRW, Inc., 23555 Euclid Avenue, Cleveland, OH 44117.
 Trans World Airlines, Inc., 605 Third Avenue, New York, NY 10016.
 United Aircraft Corp., 400 Main Street, East Hartford, CT 06108.

Ames' Airings

. . . by Jeanne Richardson

CONGRATULATIONS

Captain JAMES LAWLESS, Chemical Evolution, and his wife, PENNY, Biological Adaptation, welcomed their first-born, a son, on Oct. 12. His name is Michael James and he weighs 8 lbs. 2 oz.

AUSTIN SOMES, Measurement Sciences, and his wife Susan, beat the Lawless's by one day. On Oct. 11, their daughter, Janet Elizabeth, was born, tipping the scales at 8lbs. 15 oz.

BONNIE LOZANO, Classification and Organization, became Mrs. Gene Lowry, Oct. 9, in Carson City. The Lowry's will make their home in Oahu, Hawaii, where Gene will be stationed at Barbers Point.

Due to the overwhelming response (a deafening silence) to the definitions of administrative jargon previously printed in this column, the following list is offered.

It aims at defining commonly used phrases from research papers.

Too often words fail to convey the complexity of human thought, particularly of the scientific mind. These definitions are offered in hopes of improving communications between the research paper writer and reader.

IT HAS LONG BEEN KNOWN THAT . . . (I haven't bothered to look up the original source) A MATTER OF GREAT THEORETICAL AND PRACTICAL IMPORTANCE. (. . . interesting to me) WHILE IT HAS NOT BEEN POSSIBLE TO PROVIDE A DEFINITIVE ANSWER TO THE QUESTION (The experiment didn't work out, but I figured I could get a publication out of it.)

THREE OF THE EXAMPLES WERE SELECTED FOR DETAILED TREATMENT (The results of all the others were pure gibberish) TYPICAL RESULTS ARE SHOWN . . .

(Only the best results are shown) AGREEMENT WITH THE PREDICTED RESULTS IS:

EXCELLENT (fair)
 GOOD (poor)
 SATISFACTORY (doubtful)
 FAIR (imaginary)

IT IS SUGGESTED THAT, IT IS BELIEVED THAT, IT MAY BE THAT . . . (I think . . .)

IT IS CLEAR THAT MUCH ADDITIONAL WORK WILL BE REQUIRED BEFORE A COMPLETE UNDERSTANDING WILL BE ACHIEVED (I don't understand it.) UNFORTUNATELY, A VIABLE, QUANTITATIVE THEORY TO ACCOUNT FOR THE RESULTS HAS

WANT ADS

The Astrogram's ad section is provided as a personal, non-commercial service to Ames employees. Advertiser must be identified by name, extension and organization. The name may be left out of the ad but is needed for records. Ads must be submitted in writing to The Astrogram, N 241-4, by Thursday, a week before publication. The advertiser's home telephone number must be provided as a point of contact except in carpool notices.

AUTOMOBILES

For Sale-1970 Triumph Spitfire, maroon, standard equipment, \$1800. Call Buz 967-0863.

For Sale-1962 MG Midget, white/red. New clutch and brakes, original condition, complete with all accessories and shop manual. \$500. Maines, 245-7534.

For Sale-1964 Ford Galaxie 500XL. A rare 4-dr hardtop, runs well, Radio/heater and bucket seats. Make offer. Call C. McClinton 272-1812.

For Sale-1966 Dodge Sportman van. Good, dependable transportation. Radio, heater, front buckets and rear bench seats. Call 736-0317.

HOUSING

For Sale-Four-br. home, w/w carpet, 2-baths, covered patio and above ground heated pool. In Santa Clara. \$275/mo. with lease. Call 244-8114.

MISCELLANEOUS

For Sale-Pedigree Burmese kittens. Call 326-2053

For Sale-King size mattress. 248-0962.

For Sale-Irish Setter pups. Born Sept. 28, pure breeds, no papers, excellent stock. Bred for hunting. 5 males and 3 females, \$75 each. 262-4917.

For Sale-15-man rubber raft, good for rapids, river boating. \$80. Whirl Pool Gas dryer, \$30. 14" child's bike, \$9. 326-5036.

For Sale-Boy's trumpet (Lincoln), incl. case \$40. 736-2621.

For Sale-Household goods, large Mexican style cabinet \$75. Patio lounge chair \$15. Dinette table \$15. Lamps, assorted small items, John Parker, 969-3606.

Wanted-Foreign language records or tapes. Would like to learn French, Italian or German. Fred Bear, 354-2769.

Wanted-One old bugle, needed for Boy Scout Troop. Call John Habermeyer, Safety Office, ext 2988 or 736-0916.

For Sale-Sturdy 2-wheel box trailer, approx. 4x8 ft. bed, very good tires, plus spare wheel, \$50. Carlton James, 368-7153 even.

For Sale-Adjustable school desks, \$4 each. Call 736-5894.

For Sale-Springer spaniel, male, AKC, 9-months, started hunt this season. Call 262-6567

For Sale-Guitar, acoustical type Beautiful sound and finish. Outlays most \$40 and \$60 guitars. Great for beginners, intermediates and strummers. New \$50. Now \$25. Jerry Barrack. 263-2195 after 6 p.m.

BASKETBALL

There are a few teams in the All Ames Basketball League that could use additional players. If anyone is interested please contact Bruce Ganzler, ext. 2747.

YET TO BE FORMULATED. (Nobody else understands it either) IT IS GENERALLY BELIEVED THAT . . . (my office mate thinks so too)

RESULTS ARE APPLICABLE WITHIN AN ORDER OF MAGNITUDE . . . (The results are wrong) IT IS OBVIOUS THAT . . . (I think that's the way it is, but I can't explain why.)

THANKS ARE DUE WILLARD FAZZOLA AND HANK STUDELY FOR ASSISTANCE WITH THE RESEARCH AND VALUABLE INSIGHT (Willard Fazzola did the research and Hank Studley explained what it meant.)